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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,067	12/06/2001	Davide Mandato	282665US8X	9049
22850 7590 05/19/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BATURAY, ALICIA	
			ART UNIT 2446	PAPER NUMBER
			NOTIFICATION DATE 05/19/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/006,067	Applicant(s) MANDATO ET AL.	
	Examiner Alicia Baturay	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24 and 27-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24 and 27-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed 17 February 2009.
2. Claim 24 was amended.
3. Claims 1-23, 25, 26 and 47 were cancelled.
4. Claims 24 and 27-46 are pending in this Office Action.

Response to Amendment

5. The rejection is respectfully maintained as set forth in the last Office Action mailed on 14 October 2008. Applicant's arguments with respect to claims 24 and 27-46 have been fully considered but they are not persuasive and the old rejection maintained.

Response to Arguments

6. Applicant's arguments filed 22 December 2005 have been fully considered, but they are not persuasive for the reasons set forth below.
7. ***Applicant Argues:*** Shastri does not describe or suggest alternative quality of service specifications to be achieved or a selection based on a comparison of contracted quality-of-service specifications with the actual quality-of-service.

In Response: The examiner respectfully submits that Shastri teaches alternative quality of service specifications to be achieved (if no alternative servers having an estimated QoS value higher than the threshold are available, then a player may be adapted to accept a lower

bit-rate – see Shastri, page 6, paragraph 66) and a selection based on a comparison of contracted quality-of-service specifications with the actual quality-of-service (if an actual QoS value registers below a threshold value, then a dynamic connection switch may be initiated – see Shastri, page 5, paragraph 54). This renders the rejection proper, and thus the rejection stands.

8. ***Applicant Argues:*** While Shastri mentions a “user”, an “on-line session” and “multimedia content...processed by player software”, no separate quality of service specifications are provided for these entities and no set of streams, each set relating to a different one of these elements, is disclosed or suggested by Shastri.

In Response: The examiner respectfully submits that Shastri teaches a quality of service specification for a user (provide a user with an option to switch servers if a better server is found. Module 63 exists in an embodiment wherein permission to switch to an alternate server is solicited from a user. For example, at a point in time that an alternate server becomes a logical choice over a current server for streaming multimedia content, a screen pop or other type of alert may be used to inform a dynamic switch option. In some cases, a user may reject a switch option – see Shastri, page 5, paragraph 58), a multimedia application (DSS is provided and adapted to integrate with player software P. DSS uses various QoS statistics in order to determine if one of the servers S1-Sn may provide better service than a current server being used. If there is a better-performing server available, under certain

circumstances DSS enables a dynamic switching to the better-performing server. DSS module is in effect a decision-making component that reads incoming statistical data generated by varying sources and formulates a decision based on the results of a comparison – see Shastri, pages 3-4, paragraphs 33, 41), and a telecommunication session (Server data may be a combination of a variety of different states for a given server, for example, current bandwidth capability, server load, and/or pinging capability for determining electronic distance. QoS statistics relating to current server performance are determined during playback. Overall QoS performance statistics give a real-time rate of data transfer in kbps. Statistics include available bandwidth, current server load, electronic distance measurement, and actual bit rate of streaming content received from the server being sampled – see Shastri, pages 4-5, paragraphs 38, 40, and 48).

“Streams” are defined in the Specification with respect to contexts in the following way:

The hereby-proposed model is based on different Association Roles 305, each addressing the clustering of Streams 302 in associations at different levels, as described below:

Per User Role 307: groups all the Streams 302 originated by the given user operating on the given computing unit, whereby said Streams 302 lead to the same specific peer endpoint.

Per Application Role 308: groups all the Streams 302 originated by the given user using the given application on the given computing unit, whereby said Streams 302 lead to the same specific peer endpoint.

Per Session Role 309: groups all the Streams 302 originated by the given user using the given application on the given computing unit, whereby said Streams 302 lead to the same specific peer endpoint within the context of a given session (see Specification, pages 7-8, paragraphs 94, and 96-98).

The examiner respectfully submits that Shastri teaches a set of streams, each relating to a user role (an option to switch client-server connection from one server node to an alternate server node is presented to a user operating at the client location – see Shastri, page 2,

paragraph 13), an application role (software implemented at both a sending and receiving station functions to compress data for sending and to uncompress media at receipt and display of multimedia content. Software media players are provided to enable display of multimedia content whether the content is audio, video, or a combination thereof – see Shastri, page 1, paragraph 4), and a session role (a system for replacing data services of a server-node connected to a client-node with data services available from an alternate server-node operating on a data-packet-network is provided, comprising a first server-node; a client node coupled by data link to the first server-node; an alternate second server-node connected to the network and accessible to the client node; and a software module – see Shastri, page 1, paragraph 10). This renders the rejection proper, and thus the rejection stands.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Only those claims that have been amended by Applicant or required a change in the grounds of rejection are formally addressed in this action. For those claims not formally addressed, the rejections have not been altered from what was set forth in previous actions. Therefore, the substance of these rejections for claims not formally addressed in this action can be found in prior Office Actions, see the Office Action dated 14 October 2008.

Art Unit: 2446

11. Claims 24, 27-40 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinky et al. (U.S. 6,480,879) and further in view of Shastri (U.S. 2002/0065922).

Zinky teaches the invention substantially as claimed including a system that determines the quality of service and regulates activity within the distributed system based on the determined quality of service (see Abstract).

12. With respect to claim 24, Zinky teaches a computer readable tangible storage medium having a computer program stored thereon for managing quality of service, the program representing middleware and comprising executable instructions that cause a computer to: configure an application programming interface (Zinky, col. 9, lines 47-50) as a data model describing quality-of-service adaptation paths (Zinky, col. 8, lines 48-56) as specified by quality-of-service aware mobile multimedia applications (Zinky, col. 2, lines 61-63) using said application programming interface, in order to manage quality-of-service and mobility-aware network connections with other applications (Zinky, col. 6, lines 22-30) and wherein the application paths are modeled as hierarchical finite state machines (Zinky, col. 6, lines 22-36).

Zinky does not explicitly teach where the middleware is adapted to repeatedly measure the actual quality-of-service.

However, Shastri teaches where a quality-of-service adaptation path defining an adaptation policy in terms of alternative quality-of-service contracts identifying alternative quality-of-service specifications (Shastri, page 6, paragraphs 60 and 66) and rules for

switching between the alternative quality-of-service contracts based on a comparison of the contracted QoS specification with the actual quality-of-service (Shastri, page 5, paragraphs 54-55), and where in the middleware is adapted to repeatedly measure the actual quality-of-service (Shastri, page 4, paragraph 43) and to repeatedly select one of the alternative quality-of-service contracts according to the rules for switching between the alternative quality-of-service contracts based on a comparison of the contracted quality-of-service specifications with the actual quality-of-service (Shastri, page 5, paragraphs 54-57), the quality of service specifications of the selected quality-of-service contract describing a currently to be achieved quality-of-service for one or more network connections (Shastri, page 5, paragraphs 54-55), and wherein the adaptation paths are modeled as a hierarchical finite state machines, each quality-of-service contract of an adaptation path corresponding to a different state of a hierarchical finite state machine, said rules for switching between the alternative quality-of-service contracts corresponding to transitions between the states of a hierarchical finite state machine (Shastri, page 6, paragraphs 62-63) and each hierarchical finite state machine comprising: a finite state machine associated with a User Context, a finite state machine associated with an Application Context nested in said finite state machine associated with said User Context (Shastri, page 6, paragraphs 61-62) and a finite state machine associated with a Session Context nested in said finite state machine associated with said Application Context (Shastri, page 6, paragraphs 62-63), wherein said User Context (Shastri, page 5, paragraph 58), said Application Context (Shastri, pages 3-4, paragraphs 33 and 41) and said Session Context (Shastri, pages 4-5, paragraphs 38, 40, and 48) each identify an arrangement of quality-of-service specifications enforceable through a set of streams belonging to a given

user (Shastri, page 2, paragraph 13), multimedia application (Shastri, page 1, paragraph 4) and telecommunication session (Shastri, page 1, paragraph 10), respectively (Shastri, page 6, paragraphs 61-64), the given user partaking in the given telecommunications session by means of executing the given multimedia application (Shastri, page 6, paragraph 61), and wherein said arrangements of quality-of-service specifications identified in said User Context, said Application Context and said Session Context are specified by said multimedia applications using said application programming interface (Shastri, page 5, paragraph 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Zinky in view of Shastri in order to teach where the middleware is adapted to repeatedly measure the actual quality-of-service. One would be motivated to do so in order to be assured that a best-suited server is being used throughout the playback of content at all times.

13. Claims 41, 42 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinky et al. (U.S. 6,480,879) in view of Shastri (U.S. 2002/0065922) and further in view of Neureiter et al. ("The BRAIN Quality of Service Architecture for Adaptable Services with Mobility Support").

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on (571) 272-6798. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2446

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
May 15, 2009

/Kevin Bates/
Primary Examiner, Art Unit 2456